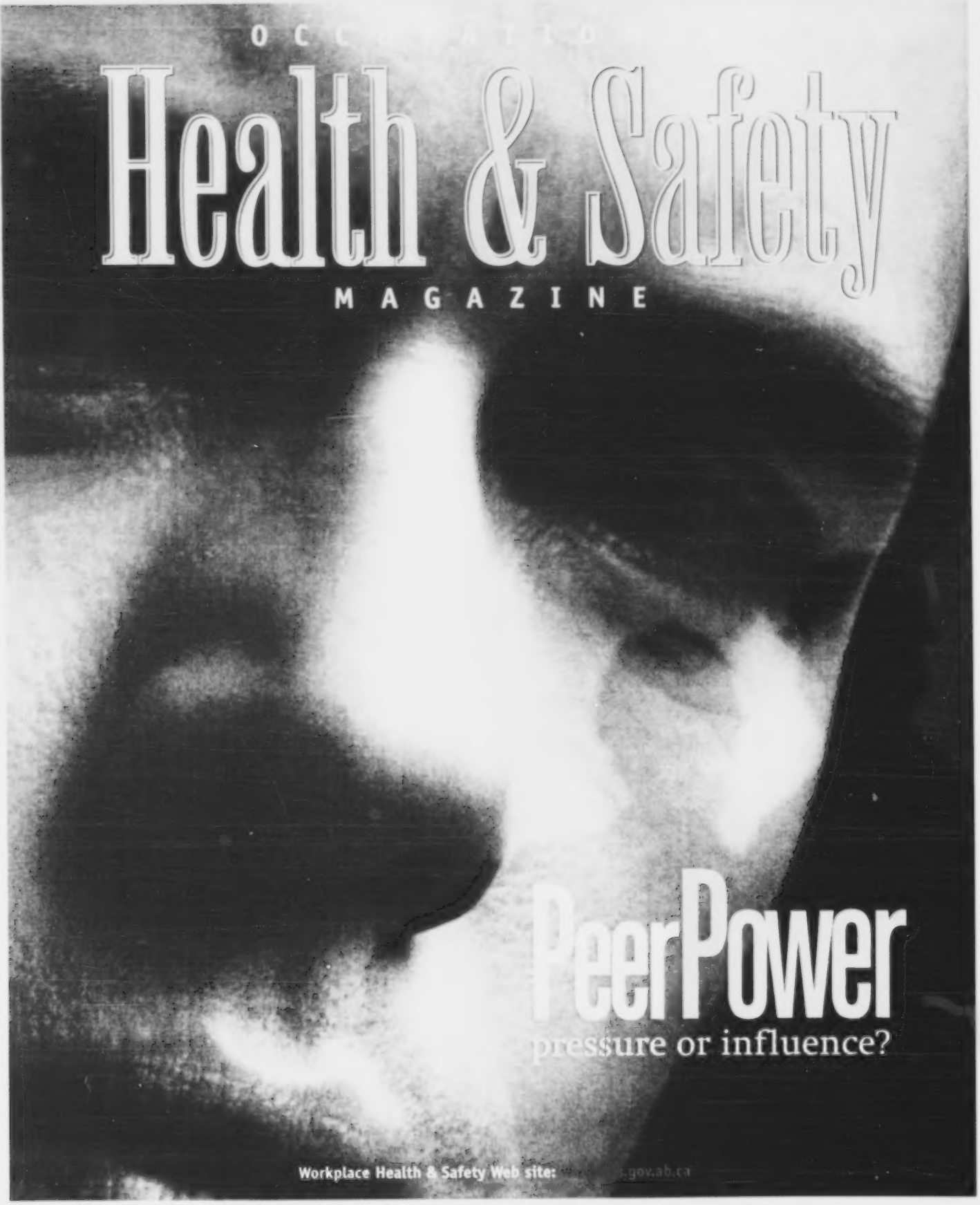
OCCUPATIONAL
Health & Safety
MAGAZINE
PeerPower
pressure or influence?
Workplace Health & Safety Web site:

Missing Tim

by Julia Hamilton

How do I put all of Tim into words? 19 years old – Big – Tall – Strong – Long strides – Heavy walk – Loud doors – Louder voice – "When's dinner?" – "Where's Maggie?"

Music from his bedroom – Music from the bathroom – Music from his car – "What's there to eat?"

Tim not only devoured life, but also the contents of every refrigerator he passed.

Tim was our son.

On July 9, 1999, Tim was working for a company, erecting an extremely large party tent. His crew had been working for over 12 hours. As Tim and another worker, John, manoeuvred the last pole into place, it came in contact with a hydro line that both companies knew was in the way.

14,000 volts.

John was badly burned. Tim was killed.

Every moment of our lives has been assaulted by Tim's death.

The Hamilton family: Tim, Maggie and Bob at Maggie's high school graduation

Tim belonged to a remarkable group of about 30 kids from our community who had remained friends since elementary school. These kids and their families have also been devastated by Tim's death.

> Every adult on every job site must monitor the safety of young workers through the eyes of a parent

I love those kids. But now to see them is bittersweet.

Now I watch them greet each other with a hug or a warm pat on the back and I think, why not Tim, too? I hate the May 24th weekend because I hear them make plans for their group camping trip and I think, why not Tim? Canada Day fireworks bring back all the memories of Tim and his buddies – their shirts off and a very large letter painted on each chest to spell Canada.

Everything has changed. Everyday occurrences jump up, catch me by surprise and kick me in the stomach – a bus stop full of kids, kids with hockey gear getting dropped off at the arena down the street, grocery shopping and realizing that I don't need the large size of anything anymore.

Get this straight.

Tim Hamilton did not want to die. Tim was at work to make money, because he had plans. Plans for the weekend, for college, for his future.

What an exceptional adult he was becoming.

What a contribution he would have made.

As parents we stressed to Tim that developing a positive work ethic was a life skill, that a good pay cheque was fair trade for an honest day's labour.

I never – ever – even imagined that experienced adults would, with conscious deliberation, place our son in such a glaringly deadly situation.

Every adult on every job site must monitor the safety of young workers through the eyes of a parent – using the standards they would use if it were their child on the job.

For my husband Bob, our daughter Maggie and me, the pain of losing Tim cannot be captured in words. A part of life is empty. The magic is gone. I am so very tired of watching my family hurt. Just going out for dinner hurts. We phone and ask for a reservation for three and yet when we arrive the waiter takes us to a table set for four and as we get settled he takes away the fourth place setting.

Now, in front of me, I sense a huge black hole – a void that has no bottom and no edge to reach for on the other side. I know that hole is grief, that the agony in there will be immeasurable, and I am terrified.

This year I've been giving talks to schools, executives and workers about job safety. People ask me how I can stand up and talk about Tim. That's easy – medication.

Why do I do it? To make you sad? No. To make you mad.

Get mad at anyone who doesn't pay attention to job safety.

Get mad at those who sit and watch ... while lives are lost.

Writing this has been excruciating but it has also provided me with the most wonderful opportunity to talk about Tim. I feel like I am tucking him in – letting him hear me tell the world how wonderful he was, how proud we were of him and the friends he chose, the decisions he made in life, the priorities he had, how his sister looked up to him and cherished his friendship, how his father and I loved him more than life itself and have prayed to God to let us trade places with him.

Julia Hamilton is Tim's mom and an artist who lives in Calgary.

OCCUPATIONAL
Health & Safety
MAGAZINE

A Workplace Health and Safety
Alberta Human Resources and Employment publication

Managing Editor – *Wally Baer*
Editor – *Juliet Kershaw*

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How to get more occupational health and safety information

Look up the Workplace Health and Safety Web site at **www.whs.gov.ab.ca**
Contact the Workplace Health and Safety Call Centre at **1-866-415-8690**

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contents

Perspective

2 **Missing Tim**
by Julia Hamilton

Stories

6 **Don't Stop That Thief**
by Allan Sheppard

8 **Peer Power: Pressure or Influence**
by Marilyn Buchanan

9 **Peer Pressure On the Job**
by Norma Ramage

14 **Hair and Nails**
by Jeff Day and Juliet Kershaw

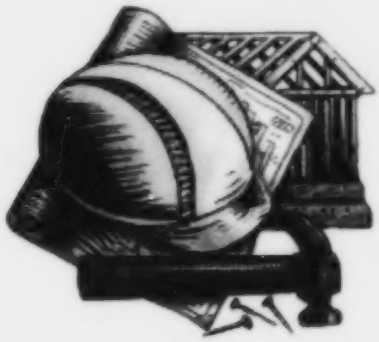
22 **Don't Let This Happen to You**
by Colin Kerr

Ergotips

12 **Lifting and Your Back: Some Fresh Ideas**
by Ray Cislo

Much more

4 News & Notes
5 Workplace Health & Safety (WHS)
11 Ten Questions to Ask Your Employer
18 Partnerships
19 Real World Solutions
20 Web Watcher
21 Can't Take the Heat?
23 Workplace Fatalities



Residential construction safety guide

As builders and renovators become increasingly concerned with improving safety at work sites and reducing liability, they are more actively applying safety programming to their workplaces. The new *Alberta Residential Construction Safety Guide* has recently been published to support these efforts on residential construction sites. The guide contains information to help contractors understand their obligations as prime contractor, as well as sections to be passed on to tradespeople. Material is easy to read and understand, and easy to reproduce. The guide was produced as a result of a joint effort by Alberta Home Builders' Association, Alberta Human Resources and Employment and the Alberta Construction Safety Association. The guide is available on-line at www.ahba.ca or by contacting any of the organizations listed above.

Concerned about workplace violence?

Employers and workers who want to learn more about workplace violence can now refer to a new video, *Workplace Violence: It's Everybody's Business*. The 19-minute video, produced by Alberta Human Resources and Employment, the Workers' Compensation Board - Alberta (WCB) and the Edmonton Police Service, promotes awareness and worker training in dealing with workplace violence. The video presents situations involving workplace violence and describes the typical components of a workplace violence prevention program. It complements a recent Workplace Health and Safety (WHS) bulletin *Preventing Violence and Harassment at the Workplace* available at the WHS Web Site, www.whs.gov.ab.ca.

The video is available at the Alberta Government Library – Labour Building Site. To borrow the video, contact your local library and make your request through the inter-library loan process, or visit the library in person (See page 5, WHS column, for the address).

It is also available for purchase from the WCB for a nominal fee. If you would like a copy for your library, contact WCB's Corporate Security at (780) 498-4822, or e-mail corporate.security@wcb.ab.ca.

Is your radiation equipment registration certificate current?

If you own and use certain designated radiation equipment in industrial, educational, commercial, research or entertainment facilities, the equipment may require registration. As well, your present registration certificate may be out of date. All certificates for designated radiation equipment issued before 1997 have expired.

Designated radiation equipment includes class 3B and 4 lasers, and the following x-ray equipment: diagnostic, diffraction and analysis, cabinet, industrial radiographic, irradiation, security and baggage inspection.

Registration procedures also have changed. The Alberta government has delegated the responsibility for issuing registration certificates to the University of Calgary. To register your radiation equipment, contact the University of Calgary, Safety Services at (403) 220-7653 or ucsafety@ucalgary.ca.

Legislation requires that all designated radiation equipment be registered before it is installed or operated. Radiation equipment in transit or storage and not capable of being energized does not require a registration certificate.

How clean is your water cooler?

According to the Canadian Bottled Water Association, it is very important to clean your water cooler regularly. As soon as a bottle of water is opened for use, it is exposed to possible microbial contamination. Over time, there can be microbial build-up in a cooler, as there would be for any other appliance used for dispensing food. To find out how clean your cooler is, see www.thecoolerdoctor.com.

Radiation Protection Regulation Review

Workplace Health and Safety invites employers and workers to participate in a full review of the *Radiation Protection Regulation*. A task force has been established to review and recommend changes to the regulation. A draft proposal will be available by early summer 2002. If you are interested in commenting on the draft proposal or issues related to the regulation, contact Diane Waters at (780) 422-4711 or diane.waters@gov.ab.ca. Look for a copy of the draft proposal this summer on the Workplace Health and Safety Web site, www.whs.gov.ab.ca.

More on forklift maintenance . . .

In the January 2002 issue of *Occupational Health & Safety Magazine* we published "Forklifts: Deceptive and Dangerous," by Allan Sheppard. A sidebar noted that when carrying out forklift maintenance, mechanics should "not try to jack up the rear end of the vehicle without removing the counterweight." A concerned reader questioned this wisdom, so we went back to the Workplace Health and Safety occupational health and safety officers for a final verdict. The consensus was that, generally speaking, removing the counterweight poses more of a risk than leaving it in place. The counterweights are heavy, and proper lifting gear and procedures are required to remove them.

Manufacturers do not tell owners to remove the counterweights prior to jacking up the rear end of a forklift. When doing so, all that is required is a jack and blocking material with the proper capacity to ensure that the forklift is properly positioned and held safely. In ideal conditions, it's best to remove the counterweight.

Where were you?

North American Safety and Health Week 2002, May 5 to 11

Early in May each year throughout North America, the work of large and small committees operating under the NAOSH (North American Occupational Safety and Health) Week banner comes to fruition. In 2002, focusing on the theme Prevention is the Cure, events organized by employees, workers and the general public shone the spotlight on the importance of preventing injury and illness in the workplace.

Various activities and events took place across Alberta. Their size and scope depended on the resources available to the local NAOSH Week committees and the participating support of businesses and associations in that area.

If you missed the action this year, you can find out what others did by looking up **www.naosh.org**. Start thinking prevention now, and start generating ideas for your organization's participation next year.

Disability management seminar

Millard Health's three-day seminar, Disability Management in the Workplace: An Integrated and Collaborative Approach, provides the opportunity to learn practical approaches to setting up worksite disability management guidelines and strategies for return-to-work coordination.

Next course dates are: June 5-7 in Calgary, and June 17-19 in Edmonton. To register, please contact Kim Salvador at (780) 498-3219, or for more information, visit **www.millardhealth.com**.

MOVED: WHS Northern Regional office

The Workplace Health and Safety Northern Regional office has moved. The new address is:

Workplace Health and Safety
Alberta Human Resources and Employment
10th Floor, 7th Street Plaza
10030 - 107 St.
Edmonton AB T5J 3E4

We're 25!

Yes, *Occupational Health & Safety Magazine* is fitter than ever, even after a quarter century. At 25 years old, it may be the oldest continuing publication within the Alberta government. Watch for a special celebratory issue in September.

Contact WHS anytime...

For occupational health and safety information and assistance, phone the Call Centre 1-866-415-8690 or go to the WHS Web site **www.whs.gov.ab.ca**.

Sign up for new WHS postings

Finding it difficult to keep up with all the new information posted to the Workplace Health and Safety Web site? Can't afford to miss any new safety-related information? You can now receive by email a monthly summary of all new Web site postings. Sign up for the free subscription service today. Go to the WHS home page and click on SUBSCRIBE in the "What's New" column. It's that easy. **www.whs.gov.ab.ca**.

How to reach the Alberta Government Library - Labour Building Site

The URL for the library recently changed to **www.gov.ab.ca/hre/library**. Use the URL **draweb.library.ualberta.ca** for accessing the library catalogue.

The Alberta Government Library - Labour Building Site (formerly the Alberta Human Resources and Employment Library) houses a large selection of occupational health and safety information materials. It is linked electronically to 25 university, college, health and government libraries across Alberta. You can search the library catalogue over the Web through gate.library.ualberta.ca. The Alberta Government Library location code is **AB HR & Employment**.

To borrow materials, please contact your local library and make your requests through the inter-library loan process. Or you can visit the library in person at:

3rd Floor, 10808 – 99 Avenue
Edmonton, Alberta T5K 0G5
(780) 427-8533 or toll-free, 310-0000
(780) 422-0084

How to order Workplace Health and Safety publications

Workplace Health and Safety produces publications on a variety of occupational health and safety subjects. Publications include manuals, brochures, booklets, bulletins and posters. They are regularly reviewed and updated.

Over 230 publications are available from Workplace Health and Safety. Find them on the WHS Web site, **www.whs.gov.ab.ca**, or order them through the WHS Call Centre, 1-866-415-8690.

WHS is a division of Alberta Human Resources and Employment and falls under the jurisdiction of Minister Clint Dunford.

What to do in an attempted robbery

Don't

by Allan Sheppard

What should you do if you face a robbery at work? "Treat the incident as another transaction," according to the Edmonton Police Service's (EPS) Robbery Awareness Education Kit.

In part thanks to robbery awareness and prevention strategies, robbery attempts are rare in Alberta. But they can be extremely dangerous. Knowing what to do – and what not to do – could save your life or help you avoid serious injury to yourself and others.

"Forewarned is forearmed," says Constable Terry Jordan, a business liaison officer in EPS's Crime Prevention Unit. Jordan helped develop the Robbery Awareness Education Kit in 2001. He uses the kit to make employers and employer groups, such as the Kingsway Garden Mall Business Association, more aware of the dangers employees face in armed robberies and of strategies to reduce their risk.

A robbery occurs whenever someone takes another person's property by force or with the threat of force. Robbery is a form of theft, but with the added danger posed by a weapon.

The law does not distinguish between a real weapon and a fake, nor should you. There is little time or opportunity in a robbery situation to tell the difference, and the results could be disastrous if you guess wrong. A concealed weapon, adds Jordan, is just as dangerous as one that's visible.

You might be surprised to learn that the most dangerous weapon you face may not be a gun. In fact, Jordan says, "more injuries occur in robberies in which a weapon other than a gun is used."

It is probably safest to assume that the person attempting the robbery is the most dangerous weapon you face. He or she may be under even greater stress than you, perhaps under the influence of drugs or alcohol.

Your first duty is to protect yourself, not your property, or your employer's. The education kit lists several "time-tested recommendations" to help you:

- Be polite and accommodating. Stay as calm as possible.
- Be co-operative. Don't appear to be stalling.
- Follow instructions exactly. If the robber asks for tens and twenties, hand over those bills.
- Avoid surprises. Let the robber know exactly what you are going to do to comply with instructions. If you need to reach below the counter to get a bag for the money, say so calmly.

Your second duty, if and when it is safe, is to obtain evidence.

- If there is a note, try to retain it, and handle it as little as possible.
- Observe the robber in a normal way without staring. Make a mental note of physical characteristics that could help identify a suspect.

After the robber leaves, lock or block all doors to protect yourself and any evidence. If you can do it safely, note

stop that thief!

details of any get-away vehicle and accomplices. Pay attention to the direction of escape.

Only then should you call the police or set off an alarm. If you act too soon, you could provoke a violent reaction or create a hostage situation if the police arrive before the robber leaves.

Liquor Depot's loss prevention manager, Ted Bryan, says the company recently removed alarm buttons from the counters at all of its 24 stores in Alberta in order to eliminate any temptation for employees to put themselves at extra risk by trying to activate an alarm during a robbery. Employees are trained to activate an alarm system, located in a wall panel in another part of the store, after the robbery is over.

The education kit offers clear, simple instructions on what to do after the robber leaves:

- Call 911 immediately, even if you have activated an alarm.
- Tell police what has happened.
- Stay on the line until the police tell you to hang up.
- Ask witnesses to stay until the police arrive and to make notes of any details while they wait. Get names and addresses of those who can't stay.
- Cover or otherwise protect possible fingerprints and other evidence.
- Go over the incident in your mind and make notes while the memory is fresh, but don't talk about it with fellow employees or witnesses.
- Let the police talk to the media. If you discuss the amount of money involved with anyone except the police, "you could advertise your business to future robbers."

Most of this advice is common sense, if you think about it. The problem is that, in the heat of the moment, you probably won't have time to think, and neither will the robber. "Most robberies are over in two or three minutes," says Constable Jordan. Every second after that increases the robber's risk of getting caught and your risk of getting hurt. The best insurance is to be prepared.

Ted Bryan says Liquor Depot clerks are well prepared and carefully coached by their managers. "We know from experience that our approach works," says Bryan. But he worries that some clerks, most of whom are 18 or 19 years old, are not always as sensitive as they should be to their surroundings. He finds they tend to relax when there are no customers in the store. He often has to remind them that the fact nothing seems to be happening does not mean nothing is happening or about to happen. He stresses staying constantly alert and "mindful" on the job. That can keep you safe during a robbery attempt, and it can help prevent a robbery in the first place.

Allan Sheppard is a freelance writer and researcher. He lives in Edmonton.

The information in this article is based on or quoted from the *Robbery Awareness & Business Security Manual* included in the Edmonton Police Service's Robbery Awareness Education Kit. The kit also includes an instructional video, a Robbery Procedures Quick Steps poster and other material that could be helpful in a robbery. For information, call the Edmonton Police Service at (780) 421-3333.

The Robbery Education Awareness Kit video includes a note saying that would-be robbers are unpredictable. While police and experts know a lot about criminal behaviour in general, no one can be certain how an individual will behave in a specific situation. Therefore, the Edmonton Police Service disclaims responsibility for injury to anyone following the education kit guidelines. The lesson there is simple and clear: preventing a robbery is always the most important goal.

WEB LINKS

www.retailcouncil.org/rpn/robbery.asp
Retail Council of Canada recommendations.

www.ottawapolice.on.ca/en/help_us/robbery.cfm
Robbery prevention from the Ottawa Police Service.

www.sk.rcmp.ca/robberykit.htm
A PowerPoint presentation on procedures before, during and after a robbery (click on "download robbery.ppt") from the RCMP.

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Books

Violence in the Workplace: Prevention Guide, 2nd ed.
Ontario: CCOHS, 2001
(HF 5549.5 E43 V56 2001)

Violence in the Workplace: Preventing, Assessing and Managing Threats at Work.
Rockville, Md.: Government Institutes, 1998.
(HF 5549.5 E43 W54 1998)

Human Resources Guide to Preventing Workplace Violence
by Keith A. Norman
Ontario: Aurora Professional Press, 1999
(HF 5549.5 E43 K44 1999)

Peer Power

Pressure or Influence?

"There is no character, however good and fine, but it can be destroyed by ridicule, however poor and witless." Mark Twain (1893)

by Marilyn Buchanan

Peer pressure: the words summon up visions of victims and bullies. We associate the term with schoolyards, back alleys and adolescents. As adults we may pretend to be less influenced by the opinions of others, yet our very culture, particularly the mass media, relies heavily on our susceptibility to their influence. We see the psychological influence of peer pressure in the desire to own Beanie Babies as well as to start cigarette smoking or use alcohol and drugs.

Peer pressure is a social phenomenon that affects everyone. It has a powerful influence on an individual's choices, including work behaviour. Implicit in the word "pressure" is the use of force, yet peer pressure can also have positive effects. Then it is referred to as peer influence.

People adopt certain behaviour to win acceptance from and avoid rejection by their peer group. Peers tell us, at school and work, how well we're fitting in. When we pretend to agree with another's point of view, laugh at ethnic or sexist jokes even though we find them offensive, take part in gossip, or fail to state our preferences, we are responding to peer pressure. "I just like to go along," we say.

Ridicule

Ridicule is a form of peer pressure that is particularly injurious. More personal and intimidating than other types of peer pressure, ridicule humiliates through the use of humour. Ridicule can be extremely detrimental in the workplace, with consequences that range from loss of workers' self-respect to workplace violence. While ridicule is most likely to influence those who are insecure or lacking self-confidence, to a certain extent almost everyone is vulnerable. Young people are particularly susceptible. In fact, studies indicate that their principal fear is of being ridiculed. In the media, ridicule is often aimed at young people, to persuade them it's "uncool" to wear certain clothes, behave in a certain way or engage in certain activities.

Ridicule is frequently directed at positive behaviour. Among young people, ridicule is often reserved for those who behave in a responsible manner, perhaps for choosing not to smoke, not to drink and drive, or to work safely.

Ridicule and teasing are most frequently used to deliberately embarrass others with the intent of establishing or maintaining power and control over the target. This is usually very effective because most of us want to be liked by others. We fear rejection, and therefore don't like to be laughed at or made fun of.

It's difficult to retaliate against ridicule. If we get angry, then we may be perceived as unable to take a joke and accused of being a poor sport. Ridicule is often considered socially acceptable, and those who ridicule others are seen as witty and clever.

The effects of ridicule go beyond the person targeted. Research suggests both the observers of an episode and the individual on the receiving end will in future choose paths that conform. At any work site this can lead to increased risk for all workers, as the desire to be "normal" and not stand out as being different may lead workers to ignore or reject the consequences of health and safety hazards. Aware of their own vulnerability and seeking to protect themselves, sensitized workers will afterwards generally try to avoid whatever sparked the attack. If the behaviour is a safe work procedure, for example, not only the person ridiculed but also anyone watching may be reluctant to use the procedure again.

Healthy peer influence

The positive side to learning from your peers is called peer influence. Peer influence is normal and necessary, shaping our personalities as does peer pressure. From earliest childhood, each instance of positive feedback and consideration of our wants and needs nurtures our positive sense of self. Encouraged by these experiences, we reach out again and again to those who support us, learning confidence. In time, the occasional negative reaction from others doesn't overly disturb us. The balance of our experience is positive. We often refer to this inner resilience as "healthy self-esteem." And even when others don't agree with us, if respectful, they teach us that a difference of opinion won't harm us. In an organization, peer influence thrives in a constructive, goal-setting, positive-thinking environment. People who sustain this environment will successfully influence others to follow their lead.

People are most vulnerable to negative peer pressure when their self-esteem is low, goals are unclear and limits only vaguely defined and seldom enforced. In the workplace, people with these traits may take unnecessary risks. Taking risks is often portrayed as the heroic thing to do — a demonstration of independence. This is particularly true among men. "Show

On the Job

by Norma Ramage

On job sites across Alberta, employers are struggling with a conundrum: employees who learn the safe way to do a job in training programs and who then change their work habits once they are actually on the job.

Like many of his colleagues, Grant Henneberg, supervisor of safety services with Prudential Steel in Calgary, believes he has the answer: "I know it's peer pressure. I had a case recently with a guy who did very well in class. One day on the floor I noticed he hadn't locked out his machine (made it inoperable) while he was cleaning it. He said he just forgot. I figure he looked around and decided no one else was doing it, so why should he? He didn't want to look like the company geek."

Although the impact of peer pressure is hard to quantify, most safety experts like Henneberg agree it's a powerful force and one that isn't likely to disappear. They also accept the truth of a comment by Steve Yorke, a third-year pipefitting apprentice with the construction company Bantrel Inc., who says, "You tend to respect the advice you get on the job more than the classroom stuff."

That's why employers and safety experts are focusing increasingly on reinforcing the positive aspects of peer pressure. One recent innovation is the introduction of Green Hand programs, which use various means to identify new workers so their more experienced peers can lend them a helping hand.

Last year, the Canadian Petroleum Safety Council (PSC) introduced its voluntary Green Hand program to help reduce the number of injuries among inexperienced workers, particularly those under 24. PSC statistics show that these workers have a 60 per cent chance of being injured on the job during their

The power of negative peer pressure is very strong, is universal, and when allowed to take root in the workplace, can and will undermine the best safety program.

No Fear" the media shout. On a work site, this often takes the form of unsafe work behaviour, encouraged and celebrated by risk-taking peers. Perhaps they wear their hard hats backwards (to look like their ball caps), or neglect to use fall protection ("It's wimpy!"), safety glasses ("They look dorky") or appropriate clothing ("It's not cool").

How do we support positive peer experiences? As individuals, we begin by paying attention to our own needs, wants and preferences, and expressing ourselves clearly and openly within our peer group. As an organization, when we treat all workers with the respect that we hope their peers will extend to them, we teach them to be satisfied with no less. People who develop healthy, confident "solid selves" will seldom experience peer influence as peer pressure.

People want to belong! This universal desire allows us to use peer influence to promote social responsibility. If your peers demand appropriate behaviour, it's more likely you will behave appropriately. Rather than focusing on enforcement using verbal discipline and work punishments, some organizations use positive reinforcement to help turn troubled workers into mentors. They develop a solid reputation while building their organizational and decision-making skills. They become the peer influence.

Studies support the concept that negative peer pressure, and particularly ridicule, can increase at-risk behaviour and decrease achievement and motivation. It is important for your workers to be aware of the undermining effects of negative peer pressure and that you arm your workers with the knowledge and strength to develop and maintain positive peer influence.

Marilyn Buchanan, CRSP, is a psychology student at Red Deer College.

first six months of employment. Occupational Health & Safety figures paint a similar picture, indicating that in 2000, 21 per cent of all injured workers were between 15 and 24 years of age. New workers are given Green Hand stickers for their hard hats. To date, the PSC has distributed more than 3,000 stickers.

Warren Welling, a health, safety and sustainable development consultant with Shell Canada Limited, was one of the moving forces behind the PSC initiative. He first encountered the Green Hand program on a visit to Shell Canada's sister company, Shell Oil, in the U.S. "I heard about a short-service employee program that identified new people. When I took a look at it, it struck me that this was one reason that they had a very good safety record."

> Fellow workers have the most immediate and long-lasting impact on new workers' safety habits.

One of Welling's concerns was that the stickers would single out new workers and make them the victims of harassment. "The people down there told us that in the first two weeks it was kind of rough with jokes and comments, but after that they never had the problem again."

Carl Fergie wore a sticker on his hard hat when he joined Prudential Steel four years ago as a materials handler, and he admits that "it was a little intimidating" because it made him stand out when what he wanted most was to blend in. Today, however, he can appreciate the value of the Green Guy program. "When I see a new worker, I remember what it was like when I was a new hire. I'm more patient and helpful with them and also more cautious around them."

Prudential supervisor Wayne Taylor admits that when the program was introduced, there was some initial teasing and joking. But that quickly vanished and now, he says, "Most of our experienced workers like the idea, because in a job like this everyone has to look out for each other."

At the Scotford Refinery expansion project, the Athabasca Construction Joint Venture Group, which is building the expansion, has introduced an apprentice mentoring program. Chris McEwen, apprentice co-ordinator, says 1,500 journeymen and apprentices have completed the program since January 2001. Apprentices are given a safety orientation and journeymen are instructed on how to coach new employees and pass on their skills.

Although the original concept was to assign journeymen and apprentices one to one, on a job with 8,000 people on site at any given time, this wasn't workable, explains McEwen. "What we do now is on any given crew, if we have three apprentices, we try to have three journeymen who have gone through the program."

McEwen says early statistics are promising. "We can say that apprentices on this project are no more likely to have an accident than a journeyman. Alberta wide, government statistics show that apprentices are twice as likely to get injured on the job." Steve Yorke, who has completed the mentoring program, says, "The senior guys I have worked with have always given me good advice and guidance. It has definitely been a positive experience."

Not all companies use a formal mentoring program. At Prudential Steel, a letter from the vice-president is sent to workers who have completed their probationary period, asking about fellow employees who have made them feel welcome or who have been especially helpful. Says Henneberg, "We're looking for mentors."

Whether they are formally designated as mentors or not, there is no doubt that fellow workers have the most immediate and long-lasting impact on new workers' safety habits. Chris Lewin, who joined Bonus Drilling as a floor hand last July, says bluntly, "When you're a green roughneck, you do what the experienced guys tell you to do and how they tell you to do it." Fortunately for Lewin, his experience with his rig crew was positive.

Not all workers are so fortunate. There are too many stories like the one told by University of Alberta student David Mitchell who had a summer job with a Calgary framing crew. "Our supervisor was walking around on a six-inch frame 50 feet above the ground, holding a pneumatic nail gun and wearing flip flops. I was the only one of the three guys on his crew who wore safety boots."

Another complicating factor is that most experienced workers are unaware that they are passing along bad safety habits. They are convinced that the way they have done the job for years is the best way.

That's why some employers are increasing their efforts to ensure that positive safety experiences get wide dissemination on the job. Lou Doiron, senior vice-president of Enserco Energy Services Company, cites the example of a new worker who recently completed a vehicle safety course that included the safety benefits of seat belt use. "The very next day his truck hit a moose and the seat belt saved him from serious injury. We didn't just put that guy back on the rig and let him be obscure. We encouraged him to tell his story."

Doiron also believes that a strong and consistent safety message from management can offset negative information from fellow workers. "People like myself have to get out in the field and reinforce the right message. These guys are going to be more comfortable about working safely if I come along, put my hand on their shoulder and say I want you to shut this down if you feel uncomfortable and unsafe."

Although younger workers continue to be the focus of many of these peer pressure initiatives, there is a growing consensus among safety professionals that today's young workers are more knowledgeable and concerned about safety than was the case 10 years ago. While peer pressure continues to be a part of any young person's life, both on and off the job, many agree with Chris McEwen when he says: "I find a lot more younger workers are looking at older guys and saying, 'I'm not doing it your way. I'm protecting myself and my body.'"

Norma Ramage is a freelance writer and communications consultant living in Calgary.

WEB LINKS

www.worksafebc.com/news/current_news/backgrounders/newbg_02_01_21.asp
Youth risk-taking study from Workers' Compensation Board of British Columbia

www.cdc.gov/niosh/99-141-5.html
Teen peer education programs for promoting safety

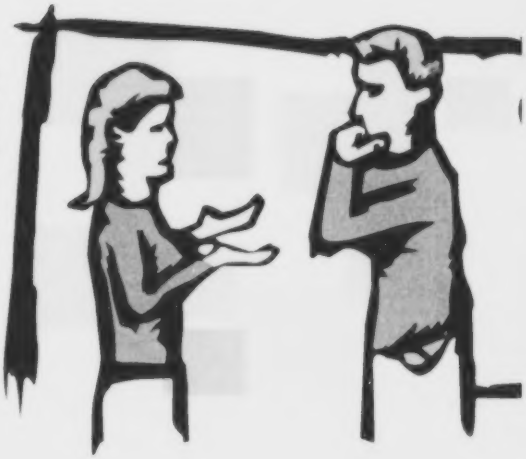
www.webworldinc.com/wes-con/chance.htm
"Why Take a Chance?" An article about peer pressure and safety

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Video
Getting along with your co-workers 1998, 13 min.
This program helps new and re-entry workers understand why it's important to behave responsibly on the job. The program discusses diversity in the workplace, substance abuse and safety on the job. (HRV 205)

Ten Questions

to Ask Your Employer



If you are ever asked to do something that you think could endanger you or your co-workers, the law requires you to refuse to do that work.

You're ready to start work. You've got the job and an interview lined up. You're prepared to answer the employer's questions. Now it's time to think about the important questions you should ask the employer.

Work isn't just about benefits, holidays and getting paid. You want to stay healthy and safe at work.

You have a right and a responsibility to find out whether this employer takes your safety seriously.

Here are ten questions you should ask the employer:

1. **What are the dangers of my job?**
The law requires employers to tell you about any hazards they know about at the workplace.

2. **Are there any other hazards (noise, radiation, chemicals) that I should know about?**
The effects of exposure to some hazards take time to show up. High noise levels can cause hearing loss. Dusts and chemicals may increase your risk of getting diseases such as cancer.

Your employer must share this information with you and tell you how to work safely with these materials. The law may also require you to use safety equipment.

3. **Will I receive job safety training? When?**
Employers must make sure you have the skills to do the work you're assigned safely. This means you may need training before you begin work.

4. **Do you have safety meetings?**
If so, it's a good indication of the employer's commitment to safety.

5. **Is there any safety equipment I'll be expected to wear? Will I receive training in how to use it? When?**
Your employer must make sure you use appropriate safety equipment when necessary and must train you to use it.

6. **Will I be told what to do in an emergency? When?**
Either your supervisor or your employer must explain the emergency procedures before you start work.

7. **Where are fire extinguishers, first-aid kits, and other emergency equipment located?**
The employer must provide emergency equipment such as fire extinguishers and specialized equipment that could be needed in an emergency. All workplaces must have a first-aid kit.

8. **What do I do if I get hurt? Who is the first-aid person?**
Your employer must provide first-aid equipment and services at your workplace. This means that the right type of first-aid kit must be on site, and some workers must be trained in first aid and available at all times.

9. **What are my health and safety responsibilities?**
You must take reasonable care to protect yourself and the health and safety of your co-workers. This includes co-operating with your employer by following the employer's safety rules and taking required safety training.

10. **Who do I ask if I have a health or safety question?**
Ask your employer or supervisor first, or contact the Workplace Health and Safety Call Centre and talk with one of our staff (toll free 1-866-415-8690). You can also reach us at www.whs.gov.ab.ca. If you're experiencing a serious problem, one of our occupational health and safety officers can drop by the workplace and check things out. All questions and complaints are kept confidential.

This article is a condensed version of the Workplace Health and Safety bulletin *Ten Questions to Ask Your Employer*. Find the complete publication under Publications on the WHS Web site (www.whs.gov.ab.ca) or call the Workplace Health and Safety Call Centre (1-866-415-8690) and ask for a copy to be mailed to you.

WEB LINKS

www.yworker.com/english/index.htm
Young Worker Awareness Program from Ontario's Workplace Safety and Insurance Board

www.worksafebc.com/news/campaigns/youngworkers/default.asp
British Columbia's Workers' Compensation Board Young Worker Site

www.alis.gov.ab.ca/pdf/cshop/xtremesafety.pdf
A booklet for young workers produced by Workplace Health and Safety.

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Books

Job Safety Skills for Young Workers
Edmonton, Alberta: Job Safety Skills Society, 1997
(155.2 J62 1997)

Videos

Safety and the Young Worker, 10 min.
A series of re-enactments shows unsafe work situations and ways to correct them. Directed at teenage audiences. (VC0181)

Dying for Work, 19 min.
CTV's W5 investigative report into deaths and injuries among young workers. (VC0345)

Safety Orientation, 22 min.
Covers aspects of construction safety. Suggested for young workers. (VC0232)

Lifting and your Back
Some Fresh Ideas

by Ray Cislo

Are you still being told that the only way to lift an object is to place it between your legs and then lift with your legs, not your back? The person who gave that advice never had to lift a bundle of three-metre-long pipes. Or a washer and dryer. This advice doesn't reflect the real world of oversized pipes, appliances and boxes. And it assumes that many people have sufficient leg strength to perform the lift – many simply do not. With up to 80 per cent of all adults expected to experience back pain during their lifetime, learning to lift, lower and move objects safely is very important.

Revisiting the causes of back injury

Overexertion injuries result from overloading or overstretching muscles, tendons and ligaments. Overloading exceeds their strength, and overstretching exceeds their range of motion. Overuse injuries result from using muscles, tendons or ligaments so much that they become damaged.

In moderation, for example, the task of manually loading pallets may not be particularly hazardous. But if you repeat the task endlessly for eight hours each day, in an awkward body position and without allowing the body enough time to recover, you may end up with a back injury.

Activity is your best friend

Some people still believe that to reduce the risk of low-back injury, all activities involving lifting, lowering and moving objects should be eliminated. This isn't quite correct. To remain healthy, muscles and other tissues must be challenged. The key is making sure that the challenge is sufficient – not too little, not too much. The worker slinging 40-kilogram bags of cement may need to reduce how much she works with her back. The process-control operator, who sits at a console all day without moving much, might be better off with a mix of work activities that *includes* using his back.

Work up your strength

To avoid injuring the muscles, tendons and ligaments in your back, you must give them a chance to adapt to loads of increasing weight. You want to expose them to loads that challenge but don't damage them. Equally important, you want to allow them time to recover between periods of activity. Gradually increasing the weight they must carry and the length of time they are used improves these body tissues' tolerance to injury.

> The sedentary worker may actually be at greater risk of injury than the labourer.

Work up your endurance

Muscle endurance, which helps tissues work longer without tiring and losing their ability to work effectively, has more protective value than muscular strength. Research shows that exercise programs combining cardiovascular exercise with low-back exercises are more effective than programs emphasizing low-back exercises alone. Cardiovascular exercise such as walking briskly, skating or cross-country skiing helps build muscle endurance.

Lifting principles

While employers should eliminate as much manual lifting and lowering as practical, there will still be times when objects must be handled manually.

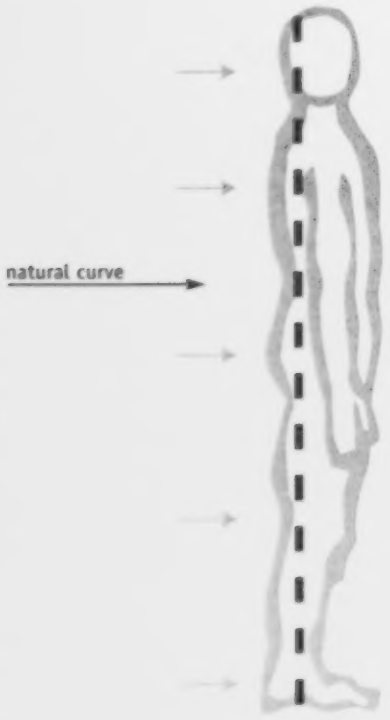
Is there one perfect technique for lifting? Unfortunately not. But do follow the four principles below as much as possible when lifting. Make sure your co-workers' or employees' methods follow these principles.

1. Keep the natural curve in your lower back
When standing straight, the lower back naturally curves to create a slight hollow. Always try to maintain this curve when lifting, lowering or moving objects. The spine and back are most stable in this position.

2. Contract your abdominal muscles
Contract the abdominal muscles during lifting, lowering and moving activities. This improves spine stability. Sometimes described as "bracing," contracting the abdominal muscles even slightly (as little as four to five per cent) improves spine stability and reduces the likelihood of injury.

3. Avoid twisting
Twisting the back can make it less stable, increasing the likelihood of injury. Bracing helps reduce any tendency to twist.

4. Hold it close
Keep the load as close to the belly button and body as possible. Doing so reduces the strain on muscles of the back and trunk. If necessary, use protective clothing such as leather aprons so that sharp, dirty, hot or cold objects can be held as close to the body as possible.



"Biomechanics of the Thoracolumbar Spine"
by S.M. McGill, in *Clinical Biomechanics*, edited by Zeevi Dvir. Churchill Livingstone, 2000.

"Low Back Injury: Improving Prevention Strategies and Rehabilitation Approaches,"
A lecture delivered by S.M. McGill, December 2001, Edmonton, Alberta.

Ray Cislo, P.Eng., B.Sc., (H.K.) is a safety engineering specialist at Workplace Health and Safety.

WEB LINKS

www.gov.ab.ca/hre/whs/publications/pdf/ph003.pdf
Let's Back Up a Bit — Some Truths About Back Belts

www.gov.ab.ca/hre/whs/publications/pdf/bcl001.pdf
Lifting and Handling Loads — Part 1: Reviewing the Issues

www.gov.ab.ca/hre/whs/publications/pdf/bcl002.pdf
Lifting and Handling Loads — Part 2: Assessing Ergonomic Hazards

www.gov.ab.ca/hre/whs/publications/pdf/bcl003.pdf
Lifting and Handling Loads — Part 3: Reducing Ergonomic Hazards

Seven myths about back pain

1. If you've slipped a disk (also known as a herniated or ruptured disk), you must have surgery. Surgeons agree about exactly who should have surgery.

Causes of back pain can be complex and difficult to diagnose. Opinions and treatment approaches vary among surgeons and health professionals. Only about two percent of all persons with back pain actually need surgery. Who you see is what you get.

2. X-ray images, CT and MRI scans can always identify the cause of pain.

In research studies, abnormalities of the spine were as common in people without back pain as those suffering with back pain. Seeing abnormalities with these imaging methods is no guarantee that the cause of pain has been found.

3. If your back hurts, you should take it easy until the pain goes away.

Persons with back pain who continue routine activities as normally as possible do better than those who try either bed rest or immediate exercise. It is often helpful to have persons with back pain return to some form of light work until they have recovered more fully.

4. Most back pain is caused by injuries or heavy lifting.

Some back pain is related to serious disease or physical problems of the spine. Up to 85 per cent of persons with back pain, however, can't recall a specific incident that brought on their pain. Heavy lifting or injuries, though risk factors, do not account for most episodes.

5. Back pain is usually disabling.

Most people with back pain simply get better, regardless of whether they receive treatment or the treatment method used. Only a small percentage of workers with back pain miss work because of it. Most people who leave work return within six weeks, and only a small percentage never return to their jobs.

6. Everyone with back pain should have a spine X-ray.

X-rays often provide little more useful information than the physical assessment performed by a health professional. Low-back x-rays may also involve unnecessary exposure of the reproductive organs to radiation.

7. Bed rest is the mainstay of therapy.

This is old thinking. Studies have shown that four days of bed rest turns out to be no more effective than two days, or even no bed rest at all. These same studies have shown that people who remain active despite pain experience less ongoing pain in the future. And they make less use of health care services.

Source: Deyo, RA. "Low-Back Pain," Scientific American, August 1998.

The September 2002 issue of Occupational Health & Safety will provide a full discussion of these myths. If you would like information sooner, consult the articles noted above, "Low Back Pain," or a qualified health practitioner.

"Repetitive strain injuries are a large part of the reason people leave the industry. If dermatitis conditions don't get them, then arms, backs, knees and shoulders do."

and Nails

by Jeff Day and Juliet Kershaw

The neon signs are everywhere: HAIR AND NAILS. Everyone, it seems, wants beautifully styled hair and perfectly polished nails. Clients at the hair salon relax in cushy chairs while their hair is shampooed, cut and dried, and perhaps curled, extended, woven or permed. Fingernails and toenails may also be clipped, shaped, extended and/or painted.

The customer may leave the salon coiffed and buffed, but how does the work on hair and nails affect the technicians? Both anecdotal evidence and well-researched studies note significant occupational hazards. Hair stylists' work is hard on backs, feet, hands, arms and skin. Long-term exposure to some of the chemicals they use can also lead to serious long-term health problems.

"Most people enter the profession at very young ages, 18 or 19," says Amerigo Bruno. "They don't pay attention to their bodies." Bruno, a hair stylist at Alta Moda in Edmonton, points out that few people stay in the industry into their late forties. He speculates that many can't tolerate the damage to their bodies. "It's overtaxing the body, and down the road prevents them from being in the business. If dermatitis conditions don't get them, then arms, backs, knees and shoulders do."

Manicurists should be concerned about their regularly inhaling potentially harmful vapours and mists given off by cleansers, strengtheners, polishes and glues.

However, hazards can be minimized. The design of working areas, the ventilation system, and equipment design and use, all affect exposure levels. Attention to posture and exercise, and to footwear also plays a role.

How's your back?

Lower back pain and medical problems with feet and legs are common ailments. Many stylists work long hours standing on hard floors, which can cause fallen arches, varicose veins and other circulation problems. Carol Pashak, a veteran stylist at Propaganda Hair, speaks from personal experience. "When our salon first opened, it had a cement floor and stylists suffered from sore feet, legs and backs. The second year, a sub-floor was put in and that helped tremendously."

Cutting hair in heels can be a real killer.

Owners of salons and hair-cutting establishments can do their part to minimize these types of injuries by installing adjustable stools or high chairs that allow the stylist to sit while performing client services. "When it comes to feet, stylists and hairdressers can be their own worst enemies," says Carol Pashak. "The industry is very fashion-oriented, so stylists often wear footwear that looks great but offers no form of support. Cutting hair in heels can be a real killer." Where possible, workers should use appropriate seating such as sit/stand stools, and

With beauty professionals, skin problems mostly occur on the hands, but any part of the body can be affected.

consider the importance of appropriate footwear such as low-heeled, comfortable, covered shoes. Salon owners can also decrease workers' leg and foot pain by installing softer flooring (subflooring, anti-fatigue mats, etc.) around the stylists' work areas.

Repetitive strain injuries

Hair stylists, particularly, spend a lot of time doing the same tasks over and over again. Bruno cites repetitive strain injuries such as carpal tunnel syndrome (CTS) as being particularly prevalant among hair stylists. "Repetitive strain injuries are a large part of the reason people leave the industry," says Bruno.

Repetitive tasks and motions, such as hair cutting and shampooing, can result in carpal tunnel syndrome or tendinitis. The warning signs of CTS include intermittent pain and numbness in the fingers, primarily at night. The treatment for CTS varies with the individual, the symptoms, and the overall severity of the condition. It may require changing technique, performing a variety of different jobs at the salon (job rotation), exercising to strengthen the arms and hands, and perhaps seeking the help of a physiotherapist or other health professional.

Bruno says that he changed the way he works after attending a course that taught stylists to take an ergonomic approach to cutting hair. "I learned how to stand, how to minimize movements associated with cutting, styling and drying hair." When styling hair using a round brush, he says to illustrate his point, a person doesn't have to turn the hand and wrist but instead can allow the hair simply to curl around the brush. Using the brush properly eliminates hundreds of unnecessary hand movements. The same applies to cutting hair. "You don't need to snip," he says."Instead of taking 20 snips, you open and close the blade of the scissors as if you were cutting a piece of fabric." Again, this reduces the amount you're using your hands.

Hair stylists and others with jobs focused on intensive manual work, should warm up their hands with a five-minute exercise routine before starting work, or on breaks, just as runners stretch to prevent injury.

The skinny on skin

Hand dermatitis and eczema are common ailments among hairdressers and aestheticians. The wet-dry cycle and the constant use of skin irritants (soaps, shampoos and detergents) produce favourable conditions for a variety of skin problems. With beauty professionals, skin problems mostly occur on the hands, but any part of the body can be affected. Although many chemicals can cause skin conditions, the responses may be different. One person can use bleach all the time and never have a problem, while another can use it once and suffer from a reaction. Chemicals in hair-care products and cosmetics mainly cause contact dermatitis, which can vary in appearance from redness of the skin, to a rash, hives, dryness, scaling, blistering or oozing.

Treating skin conditions isn't easy. Hand protection -- such as gloves and emollients -- are problematic because of the hands-on nature of the work. Rubber gloves are awkward and tend to tangle in wet hair, and many stylists can't use creams as they tend to wear off (usually in the client's hair). Latex gloves can also cause the very problems they are meant to avoid. Allergies to natural rubber latex products are widespread. Latex and the powders used in the gloves have been identified as the causative agents of various types of skin problems and other allergic reactions, including more severe anaphylactic reactions, similar to the reactions that some people experience when they get stung by bees. Non-allergenic gloves are now widely available.

Long-term exposure to products like hair dyes, hair spray, perming and wave solutions, nail polishes and removers can cause both skin and respiratory problems. Many studies have found an increased incidence of cancer among salon staff.

Happily, more products available to salons today are less harmful than those of even a few years ago, as manufacturers respond to consumers demanding "natural" products. Bruno points out that the ammonia level in some permanent colours and perming solutions has been reduced by two-thirds. Still, stylists and colourists need to know the safe exposure levels of the chemicals they are exposed to every day. It's important to know when exposure levels are too high and to take measures to prevent overexposure.

Preventing overexposure to chemicals

A number of products commonly used in the beauty industry may contain hazardous ingredients. As products do not routinely list ingredients or long-term exposure hazards on their labels, it's best to contact the manufacturers to find out this information. "Reputable companies are open about their products' ingredients," says Bruno. "Link up with and buy your products from those."

Some of the more harmful ingredients include:

- **Ammonia**: "It's as harmful as bleach. It's hard on the body and on the skin," says Bruno, speaking from experience. Ammonia is used in most colour and perm solutions, though some products have reduced the amount by up to two-thirds in the last few years. For people sensitive to ammonia, some colours available today are "derived from 95 per cent natural ingredients," says Bruno.

To help fend off injury to forearms and hands, before you pick up the scissors each day, do this:

1. Extend and stretch both wrists and fingers, as if they are in a handstand position. Hold for a count of five.
2. Straighten both wrists and relax fingers.
3. Make a tight fist with both hands. Then bend both wrists down while keeping the fist. Hold for a count of five.
4. Straighten both wrists and relax fingers, for a count of five.

Repeat exercise 10 times, then hang arms loosely at side and shake them for a couple of seconds.

- **Methacrylic acid**: a caustic substance used as a nail "primer" in artificial-nail kits. The primers are used to etch the surface of the original nail, preparing it for the acrylic and polymer solutions that combine to create the artificial nail.
- **Formaldehyde**: a toxic air contaminant that may be carcinogenic if inhaled. Fingernail polish and hardeners may release significantly higher amounts of formaldehyde than previously thought, according to a study undertaken by the California Air Resources Board.
- **Glutaraldehyde (GTA)**: GTA is used as a preservative in cosmetics, in skin and hair care products, and for sterilizing barber shop equipment. Symptoms reported in association with exposure to GTA include nasal irritation, rhinitis, cough, shortness of breath, tightness of the chest, wheezing, bronchitis and occupational asthma.

Whose responsibility is it anyway?

To decrease the risk of exposure to hazardous chemicals, salon owners must follow the *Chemical Hazards Regulation*, which outlines the legal responsibilities of owners regarding chemicals used in their workplaces. According to provincial legislation, chemicals that are considered controlled substances have occupational exposure limits. It is the employers' responsibility to know whether the products being used within their establishment are harmful substances, and whether exposure limits are within acceptable limits prescribed by the law.

Similarly, employers must abide by the national Workplace Hazardous Materials Information System (WHMIS). WHMIS ensures suppliers provide information about the hazards of materials produced, sold, imported or used in the workplace to employers and workers. Federal legislation requires suppliers to transmit information on labels and Material Safety Data Sheets (MSDS). MSDSs are technical documents that supplement the information provided on labels. They inform workers about the potential hazards of controlled products, provide control measures to protect workers and describe emergency procedures. Federal, provincial and territorial occupational health and safety legislation requires employers to provide labels, MSDSs, and worker education programs for their employees and contractors. All controlled products must be properly labelled. Products available to the public through retail sale may be exempt from the WHMIS requirements, however, many reputable suppliers will provide MSDSs on request.

In co-operative work situations, where individuals work independently but share space, they are responsible for their own and co-workers' safety. That means they are obligated to work together to determine and minimize risks caused by environmental factors such as lighting, ventilation, furnishings and products.

Health risks in the hairdressing industry are manageable. Most of the occupational hazards can be minimized or eliminated through a common sense approach to key risk factors. Hair stylists who are aware of and adopt healthy ways of working early increase their chances of staying well in the industry.

Jeff Day is co-owner of Hok Nik Creative in Edmonton.

Juliet Kershaw is an Edmonton-based writer and editor.

WEB LINKS

www.cdc.gov/niosh/hc28.html
Controlling Chemical Hazards in the Application of Artificial Fingernails

www.gov.mb.ca/labour/safety/publicat/bulletin/bltn144.html
WHMIS and Cosmetics

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Books

Health Hazard Manual for Cosmetologists, Hairdressers, Beauticians and Barbers
by Nellie Brown
Albany, New York: New York State Department of Health, Bureau of Occupational Health, 1990
(TT 958 B7 1990)

Health and Safety for Hair Care and Beauty Professionals: A Curriculum on Hazards at Work
California State Board of Barbering and Cosmetology, Occupational Health Program, 1993
(TT 968 C34 1993)

Occupational Exposures of Hairdressers and Barbers and Personal Use of Hair Colourants: Some Hair Dyes, Cosmetic Colourants, Industrial Dyestuffs and Aromatic Amines
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 57, France: International Agency for Research on Cancer
(R268 57 INB V57 1993)

Beauty Tips

- Minimize repetitive movements involved in cutting, brushing and drying hair. Develop an awareness of how much you repeat certain motions and find ways to reduce the frequency.
- Do stretching exercises to help prevent repetitive stress and back injuries.
- Ensure your work environment has adequate ventilation. Be concerned if customers complain of a chemical odour or if staff develop headaches.
- Use personal protective equipment when necessary. This includes eyewear, gloves, coveralls (aprons), footwear with non-slip soles, protective hand creams and respiratory masks.
- Wear appropriate footwear, such as low-heeled, comfortable, covered shoes.
- Read and follow all safety precautions on labels. Know WHMIS.
- Use appropriate seating, such as sit/stand stools.
- Use anti-fatigue matting where you stand.
- Take breaks. Stand up occasionally if your work involves a lot of sitting. Sit down occasionally if your work involves a lot of standing.
- Work in good light to prevent eye strain.
- Call the Workplace Health and Safety Call Centre at 1-866-415-8690 to find out how to assess hazards and improve health and safety at your establishment.

Partnerships in HEALTH and SAFETY

Partnerships in Health and Safety is a province-wide injury prevention program sponsored co-operatively by government, labour and industry.

The Partnerships program offers:

- Tools to implement a health and safety management system
- Guidance in applying for a certificate of recognition (COR)
- The potential for premium refunds from the Workers' Compensation Board.

For more information about the Partnerships program, call (780) 427-8842 or toll-free 310-0000.

On Guard for Safety

The Health and Safety Management System: Part 4

Emergency Planning
Incident Reporting
Program Administration

by Debbie Culbertson

This is the final article in the Partnerships series on the health and safety management system. For future reference, you may want to clip the brief recap at the end of this article. It summarizes the essential elements in a comprehensive health and safety program.

Emergency planning

Emergency response planning is not just a concern for government and emergency workers. Many Alberta companies have taken positive steps to plan for the unexpected. Even the most careful company can face a devastating emergency that could cost lives and money.

The best way to prepare for an emergency is to develop an emergency response plan. Three basic steps go into creating a plan. First, identify the potential hazards to your business. These may include on-site risks, such as fire and hazardous chemicals, and off-site dangers, such as potential train derailments or ruptured gas lines. Plan appropriate responses on the basis of the identified hazards. These might include evacuation plans for staff and people in the surrounding area. Train leaders to respond to an emergency. The leaders will work with agencies, such as police and fire departments, as well as with companies that specialize in dealing with the potential hazards that you have identified in your emergency response plan. The leaders should have the phone and cell numbers of contacts at these agencies. Finally, all staff must be trained to respond appropriately to emergencies. Regular drills and briefings are essential if emergency response plans are to have any value.

Incident reporting

Sometimes the worst-case scenario happens. Your organization is confronted by a workplace incident of large or small proportions. Follow through with your emergency plan. Then, when the dust has settled, investigate the causes in order to prevent a recurrence. Identify any uncontrolled hazards that led to the incident, discover if training is needed or if new procedures or equipment are required. You may wish to develop a form to track these concerns and changes. Sample forms can be obtained from Certifying Partners or from Workplace Health and Safety.

Program management

Investigation forms are only one part of the record keeping needed to maintain a safe workplace. Managers must also keep clear records describing and documenting their health and safety plans and the steps they have taken to fulfill them. When preparing for a health and safety management system audit, be sure to have copies of your health and safety policy, hazard assessment records, inspection records, training records, incident reports, maintenance records, and the minutes of safety meetings.

Debbie Culbertson is a writer and editor living in Devon, Alberta.

RESOURCES

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Articles

For more information on emergency preparedness, read "Ready for any Emergency" by Bill Corbett in the January 2002 issue of *Occupational Health & Safety Magazine.*

For information on incident reporting, read "Clue into Investigation" by Juliet Kershaw in the January 1997 issue of *Occupational Health & Safety Magazine.*

Videos

Workplace Health and Safety has a number of useful videos to assist employers in preparing for an emergency and investigating an incident. They include:

Health and Safety on the Job: So It Doesn't Happen Again, 29 min.
The four steps that an employer should take when investigating an incident. (VC 0225)

Emergency Preparedness/Incident Prevention/Crisis, 14 min.
How to announce an emergency, conduct an evacuation and handle the media. (FVC 250)

Planned Workplace Inspection, 10 min.
The basics of planning and implementing an effective inspection program within a municipality. (VC 0245)

Recap

Health and Safety Management System Essentials

Management Commitment: Managers must not only put safety practices and procedures in place, they must ensure these are carried out.

Hazard Assessment and Control: Identify, eliminate or control potential hazards. Train workers to respond to hazards.

Training: Provide employees and managers with regular safety training specific to their industry. Supervisors are responsible for ensuring that workers continue to apply the safety practices they have learned.

Inspections: Regular safety inspections ensure that workers and managers are complying with the safety program. Companies that want to maintain certification status (a certificate of recognition) must have regular safety audits.

Emergency Response Plan: Identify the potential hazards to your business. On the basis of that information, plan an appropriate response. Train leaders and staff to respond to the emergency.

Incident Investigation: After an incident, investigate its causes. Identify hazards, determine if training, new procedures or equipment are required. Use a form to track concerns and changes.

Program Administration: Keep records describing and documenting health and safety plans and the steps taken to fulfill them.

OHS Regulation Delayed

Last year, extensive stakeholder consultations were completed on the revised occupational health and safety regulations that govern health and safety in Alberta workplaces. Since then, Workplace Health and Safety staff have included the revisions in the proposed consolidated regulation, which is now being drafted as legislation.

Drafting delays have occurred because of the document's size (over 400 pages). The department is looking at different strategies to speed adoption of the stakeholder recommendations. Preparation of a comprehensive guide that will accompany the regulation and explain its requirements is also advancing. Both the regulation and explanation guide are scheduled for release this fall.

WANTED

OH&S Magazine advisors

Do you care about health and safety in the workplace? Do you have ideas about how to make *Occupational Health & Safety Magazine* an even more effective way to share health and safety information? If so, you may want to invest your time in guiding the development of this publication, now celebrating its 25th anniversary. You will be working with others to shape the future of the magazine to share the best occupational health and safety information with fellow Albertans, in the most effective way possible. To offer your services, you need relevant background, good ideas and team spirit. You must be prepared to meet three times a year in Edmonton to assist the magazine editors plan and review magazine content and production. If you are interested in continuing the excellence of *Occupational Health & Safety Magazine*, consider applying to become a member of the Occupational Health & Safety Magazine Advisory Board. For more information or application procedures, please call Erika Albert-Johnson at (780) 415- 9948. Applications are reviewed and approved by the board. (Please note that board members are not reimbursed for expenses incurred by attending meetings.)

Real World Solutions is a regular column that suggests simple, inexpensive ways to improve employee safety and health through adjustments to the workplace. What improvements have you made at your workplace?

If you've found a solution worth sharing, please send it to ray.cislo@gov.ab.ca

The severely bent wrist

The Problem

Flexing your wrist strongly (either up or down) while you engage in any activity for a period of time can stretch and harm nerves and tendons in the wrist. The combination of highly flexed or awkward wrist positions and forceful, repetitive motions can also reduce grip strength and your ability to work effectively.

A Solution

If you can, use an adjustable holding device (a jig) for your work. Position the work piece so your hand stays in a straight line with the forearm while you work.

When you type, position your hands on the keys so your wrists are not flexed upwards. Keep your hands in line with your for arms while you type.

Benefit

This eliminates potentially harmful wrist positions and improves strength and efficiency.

Web Watcher

Your Electronic Bookshelf part 2

by Bob Christie

Continuing on from the last issue, here are some more health and safety Web site addresses to enlarge your electronic bookshelf. Not all the sites will be of interest to you. Choose the ones that are relevant and discard the rest.

One hint as you build your list of favourites. By now, the majority of suppliers (manufacturers, distributors, dealers and service providers) have Web sites. To come up with a range of suppliers, you can use a search engine, or put the name of the company or product into the search. If you can't find your favourite supplier on-line, contact the company and ask them for their address. Pretty soon you will have your own virtual shopping mall, allowing you to get information, specifications and even order the products and services you need – all through the Web. I have listed a few product and service providers as examples, but I encourage you to personalize your list.

Non-commercial sites with health and safety interests

Faculty of Extension, University of Alberta Occupational Health and Safety
www.extension.ualberta.ca/occhealth/

Workers' Compensation Board – Alberta
www.wcb.ab.ca/

NAIT (Northern Alberta Institute of Technology) Occupational Health and Safety
www.nait.ab.ca/hr/who/ohs.htm

CSSE (Canadian Society of Safety Engineering), Edmonton Chapter
www.freenet.edmonton.ab.ca/csse/csse.htm

Safety First Occupational Health and Safety Links
plaza.powersurfr.com/safetyfirst/

Concordia University College – Environmental Health
www.concordia.ab.ca/admission/eh-ad.php

Grant MacEwen College – Life Support Training
www.gmcc.ab.ca/CEP/LifeSupport.html

Miscellaneous commercial sites with a safety focus

Daltec Occupational Health Services
www.daltec-health.com/

Occutech
www.telusplanet.net/~occutech/

Cowan Technical Services Ltd.
www.cowantechnical.com/cts2.htm

WorkSmart Injury Management Systems
www.worksmart.ab.ca/home.html

Ward Industrial Safety
www.cadvision.com/ward1st/index.html

North Safety
www.northsafety.ca/index.html

Canadian College of Emergency Medical Services
www.ccofems.org/programs/firstaid.htm

World Wide Learn
www.worldwidelearn.com/index.html

In the next issue, I'll be suggesting some interesting Canadian sites outside Alberta. Once again, this list is NOT exhaustive. The sites listed in this issue were chosen from among 236,000 hits produced from the key words "safety" and "Alberta." The list should get you on your way to adding to your "favourites" many more sites that meet your particular needs.

Bob Christie is a partner at Christie Communications Ltd., a multimedia development company in Edmonton. Bob also supplies most of the Web link resources for the articles in this magazine.

Job-related driving improves thanks to MISSION POSSIBLE @ Work

TRAFFIC SAFETY FOR EMPLOYEES

Two and a half years after its introduction, the Mission Possible @ Work (MP @ Work) driver awareness and education program is doing its job. Unlike traditional skills-based programs, MP @ Work targets driver attitude and behaviour in the workplace. The initiative is now one of the most widely embraced workplace traffic safety programs in North America, with more than 180 participating organizations.

The program is implemented in an organization by employees trained as facilitators. MP @ Work provides training materials on a number of topics, each related to a specific driving hazard, such as winter driving, animals, inattention and speed. The facilitators guide their fellow workers through one topic a session, following a step-by-step manual, complemented by video and overheads.

MP @ Work has had particular success in the petroleum industry, where motor vehicle collisions cause more on-the-job fatalities than all other causes combined. Through a partnership with the Petroleum Safety Council, almost 60 member companies are now participating.

Companies that have implemented the program are seeing tangible results. At Enerplus, after the number of company drivers doubled in two years, crashes, speed violations and insurance premiums were on the increase. The company adopted MP @ Work and saw the incidence of speeding tickets issued to company drivers drop significantly. There have also been 60 per cent fewer collisions with animals. About half of the company's 190 staff has participated in the program.

Mary Jo Spence, the environment and safety technologist at Enerplus, says employees find the program easy to implement and manage. Facilitators who approached the sessions with trepidation have reported they are extremely comfortable in their roles. "The employees are buying in. It's not something that management thinks will work; it is being driven by employees," confirms Spence.

For more information on the MP @ Work program, contact Dawn Green at (780) 430-5793 or dgreen@ama.ab.ca.

Can't Take the Heat

No, but you can protect yourself

Hot sunny days are great for lying around at the lake or on the patio. But working under the broiling sun is rarely comfortable – or healthy.

If you overheat your body and expose yourself to harmful UV rays or infrared radiation, you may end up suffering from heat rash, sunburn or heat stroke. Make sure you protect yourself from the heat and sun when working outside. Pocket the chart below to stay cool – and safe.

Problem	Symptoms	Treatment	Prevention
Heat rash (prickly heat)	• small red raised blisters • skin feels itchy or prickly • inflammation around the sweat glands • reduced sweat production	• rest and stay cool • keep the skin clean and dry • limit further exposure • seek medical aid or advice from oh&s personnel	• change frequently into dry, moisture-absorbing clothing (cotton is good) • apply mild, drying lotions • cool sleeping quarters to allow the skin to dry between heat exposures • keep the skin as dry as possible
Sunburn	• can be mild or severe • sweat does not evaporate • skin reddens and may blister	• cover exposed areas • apply lotion to reduce inflammation or swelling • DO NOT break any blisters that have formed	• keep your shirt on • always use sunscreen on exposed areas
Heat Cramps	• painful spasms of muscles used during work that start during or after work	• drink lots of water • seek medical attention if the cramps are severe	• acclimatize to your working conditions
Heat Exhaustion	• fatigue • nausea • headache or giddiness • clammy and moist skin • extreme thirst • fainting	• obtain medical assistance • move to a cooler area • drink water	• drink plenty of water and juice • avoid overexertion • monitor your temperature
Heat Stroke Last summer in Alberta, a young roughneck working in 28°C heat died from heat stroke. Doing hard physical work in any temperature over 21° C can bring on heat stroke. Heat stroke is serious. It can result in brain damage or death.	• hot dry skin, usually mottled, red or blue-tinged • feelings of numbness • no sweating • reduced mental alertness • weakness • drowsiness • dilated pupils • decreased muscular activity and coordination • erratic behaviour • core body temperature greater than 40.5° C • loss of consciousness	• medical emergency	• monitor your temperature

WEB LINKS

www.fda.gov/fdac/features/1997/597_heat.html
Information from the U.S. Food and Drug Administration

www.ci.garland.tx.us/health/cogheat1.htm
Heatstroke prevention, from the City of Garland, Texas

www.nlm.nih.gov/medlineplus/heatillness.html
Heat-related health problems and prevention, from the U.S. National Library of Medicine

www.gov.ab.ca/hre/whs/publications/pdf/mg022.pdf
"Working in the Heat," a Workplace Health and Safety bulletin

Don't let this happen to you

by Colin Kerr

Colin Kerr lost his right hand as a result of a 1992 construction-site incident. He tells his story here, hoping it will encourage young workers to take safety on the job seriously and prevent others from suffering.

The action I took on a Sunday morning in the summer of 1992 changed my life and the lives of my fellow workers forever. I'm sure that day is still fresh in the minds of the foreman, who is also my friend, and the worker who had a front row seat as the events unfolded. I hope my lesson prevents them from joining me as a statistic and encourages them to testify to others about the importance of safety.

I hold no hard feelings toward anyone. It was my responsibility to keep out of the danger zone on the construction site I was working on. That day, the moment I moved from my position of safety, I put myself in the path of a concrete manhole barrel. Then it fell.

Although the date of the incident is recorded as August 30, 1992, in my mind the events leading up to that day began on April 18, 1988. I was 20 years old, and just hired as a truck-checker by a general contractor who worked on earth-removal jobs. As I drove to my first day of work, I didn't know what I had been hired to do or where I would be working. I was given 30 minutes of instruction and my supervisor left with, "I hope you packed a big lunch, because we're working 14 hours a day, seven days a week." At 8:30 p.m., the supervisor came and asked me how it was going. I replied, "good." "Tomorrow will be busier," he said. I just assumed work was like this, so went along with anything I was asked to do.

The contractor liked my work ethic. Four months later, I was moved to an underground project where storm, sanitary and water lines were being installed. My first day on site, I was again learning as I went and had to cope with the frustrations of the foreman and pipelayer who were yelling all the time. Again, my work ethic helped me prevail. I worked hard and got results. I was responsible and had a good relationship with my fellow workers. But safety was a subject that wasn't stressed and it was something I didn't think about.

I left the contractor in the fall of 1990 but was rehired in the spring of 1992. At 25, I felt invincible. Safety meetings weren't regular, but I didn't think I needed them anyway. I'd had some close calls in my young career but never thought the "big one" would happen to me. As summer slid by, life at the site was unchanged; short cuts were taken and morale was average, but I felt I could roll with anything. I took a holiday; my life was sweet.

On the August Sunday of the incident, we were working on a road-building site. To raise the height of the existing manhole connecting the underground pipe to road level, a track-hoe was about to lift a second concrete manhole barrel onto the existing barrel. A second worker and I had the existing barrel ready and were standing well back from the action. I suddenly realized someone had to be inside the barrel to guide the new one into place. Without thinking, I went to climb inside the barrel. I heard a yell and felt a big weight crash onto my right side.

When I came round, I was lying beside a retaining wall. My right side felt frozen. As I was loaded into the ambulance I thought I had a broken arm and would be back on the job in a few weeks. When I woke in the hospital the next morning with a heavily bandaged right arm, I discovered my right hand had been amputated at the wrist.

I made the decision then that I'd learn to deal with my disability, and I have. Although the construction company was very supportive afterwards, its employees suffered personally and the company suffered financially as a result of the incident. I know I would not want anyone to go through what I've been through, and I think I can say the company wouldn't want any other business to suffer the consequences it did.

I clearly understand now that safety is everyone's responsibility, that each of us is accountable for our actions. I lacked training and accepted orders without question, even when the work environment wasn't safe. My employer liked me for my strong work ethic but I never thought much about safety.

I'm telling my story so you won't get hurt. It doesn't matter how old you are or what position you hold, safety is up to you. If you protect yourself first, you will be able to help others stay safe as well.

Alberta to reduce workplace injuries by 40 per cent

Workplace Safety 2.0 - A forum

Alberta Human Resources and Employment Minister Clint Dunford has introduced a bold new target for workplace health and safety in the province.

The goal? To significantly reduce lost-time claim rates.

The target? A lost-time claim rate of 2.0 per 100 person years worked in 2004, a reduction from 3.4 in 2000.

On May 8, 2002, industry, labour, safety associations and government met in Edmonton to develop a strategy to make this happen.

Find out about the new joint industry and government strategy to reduce injuries in Alberta work sites. Find out how you can help.

Visit the Workplace Health and Safety Web site **www.whs.gov.ab.ca**
or call toll free **1-866-415-8690**

October 2001 — January 2002

Occupational Health & Safety Magazine publishes Workplace Fatalities to remind readers of the importance of workplace health and safety. The information is not a final investigation report. In many cases investigations are continuing. Final investigation reports are filed at the Alberta Government Library - Labour Building Site and can be reviewed there or on the Workplace Health and Safety Web site at www.whs.gov.ab.ca under fatality reports. An occupational fatality refers to the death of a worker caused by a work-related incident or exposure. To protect personal privacy, the fatality descriptions do not include the names of the deceased.

Work-related incident fatalities

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Workplace Health and Safety. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

The following fatalities have been or are being investigated.

A 40-year-old foreman and two workers were installing insulation on the partially finished roof of an industrial building under construction. The foreman was walking along the most recently sheeted part of the slightly sloped roof, with the uncompleted roof to his right, when he fell and struck the concrete floor 12 metres below. He died from his injuries.

A 36-year-old junior wireline operator died while driving from camp to a work site, when his wireline logging truck rolled off a bridge on an icy oilfield lease road.

A 38-year-old maintenance man was working on a dump truck. The box was raised but not adequately blocked. The box dropped and trapped the man between the underside of the box and the frame of the truck.

A 21-year-old swamper was working as part of a three-person crew on a pipeline project. The crew was placing pipe on wooden skid piles using a pipelayer (sideboom). The sideboom had hooked a piece of pipe and was lowering it when the boom came down and struck the swamper, fatally injuring him.

A 59-year-old truck driver was unstrapping a load of fence posts on a public road outside a business, while workers in forklifts unloaded the posts. The truck driver undid the final strap on one unstable section of the load, and a bundle of fence posts weighing approximately 750 kilograms fell on him.

A 33-year-old coil tubing unit operator was fatally injured at an oil lease site when he was struck by pieces of a piping manifold that had exploded. The manifold, which had previously contained oil, was being purged with air.

A 58-year-old journeyman electrician was working in a warehouse installing a non-energized cable tray between an electrical room and two terminal boxes in the warehouse. He fell onto the concrete floor and suffered fatal injuries.

A 51-year-old motorman was working with a crew on an oil rig, tripping in (putting pipe into the well bore) a 28.5-metre stand of drill pipe. The top of the pipe stand was latched into a hoisting mechanism (elevators), but the derrickman was unable to stop the stand and elevators from swinging to the back of the derrick. As the top of the pipe was hoisted upward, the motorman was on the derrick floor preparing to stab the pipe into the well bore. Then the swinging elevators got stuck on a crossbeam of the derrick, applying tension to the pipe stand. The tension caused the stand to kick out and strike the motorman, crushing him to the rig floor doors. He died on the way to hospital.

A 23-year-old rig hand with seven months' experience was killed when a bridle line (large cable used to raise and lower the derrick) fell and struck him. A worker in the derrick had been preparing to lay the bridle line into the hook for lowering the derrick. Three of the four sets of chains holding the bridle line in the derrick were undone. As the worker tried to undo the ropes holding back the top of the bridle line, the ropes broke and the bridle line fell on the rig hand on the rig floor.

A 32-year-old derrickman was assisting another derrickman install an electric winch on the stabbing board (a temporary elevated work platform used to run casing when drilling). The worker had positioned himself on a fluorescent light fixture attached to a horizontal beam on the derrick but failed to tie-off with fall protection. The light brackets broke and the worker fell 15 metres to the rig floor. He died from his injuries.

A 54-year-old tree faller was falling a 30-metre lodgepole pine when it struck a smaller tree, which caused the smaller tree to break and whip back towards the worker, hitting him in the head.

A 46-year-old tree faller, the director of a logging operation, was on site when a logging crew was attempting to fall a lodgepole pine. When the tree fell, a snag log, about eight metres high, struck the man. None of the logging crew was aware the owner was on site until the incident occurred.

Occupational disease fatalities accepted

Disease fatalities represent claims that have been accepted by the Workers' Compensation Board (WCB) - Alberta for compensation. They are counted in the year they are accepted.

A 68-year-old auto mechanic, then teacher, who suffered heart failure resulting from complications related to permanent disabilities and surgery for a number of injuries suffered between 1962 and 1980.

A 76-year-old labourer, who worked in the animal-hide tanning industry for 15 and was exposed to high concentrations of chemical fumes.

The following fatalities resulted from exposure to asbestos.

A 54-year-old furnace-cleaning technician who was exposed to asbestos in the workplace for more than 20 years.

A 56-year-old instrument technician, who was exposed to asbestos insulation in 1966 while working at industrial plants.

A 62-year-old construction electrician, who was exposed to asbestos from 1948 to the mid-1980s while working as an electrician at a neon production plant.

A 67-year-old insulator, who was exposed to asbestos while applying spray-on insulation to the inside of an aircraft hangar in 1954.

A 68-year-old plumber, who died from repeated exposure to asbestos in 1957.

A 74-year-old truck driver and parts person, who was exposed to asbestos in the 1970s while handling brakes and other items that contained asbestos.

A 76-year-old carpenter, who was exposed to asbestos from 1980 to 1990 while employed in the construction industry.

An 80-year-old construction electrician, who was exposed to asbestos from 1952 to 1983 while working in boiler rooms.

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Alberta
HUMAN RESOURCES AND EMPLOYMENT

the people & workplace department

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Half of all injured workers are hurt in their first year on the job. A brutal statistic. Whatever a worker's age, if they're new on the job, they're at risk. Make workplace safety your top priority.

HEADS UP
work smart. work safe.

Alberta Construction Safety Association · Alberta Hotel Safety Association · Alberta Human Resources and Employment · Manufacturers' Health and Safety Association · Workers' Compensation Board – Alberta